

LISTING OF CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the
Application:

Claims 1-38 (canceled)

Claim 39 (currently amended): An electroanalytical method for analyzing a sample fluid,
comprising the steps of:

- (a) providing said sample fluid to an electroanalytical cell equipped with a reference electrode, a plurality of working electrodes, and an auxiliary electrode;
- (b) applying a series of voltage pulses of varying potential across said electrodes in order to produce ~~obtain transient signal responses varied by different electrochemical chemical~~ reactions ~~obtainable~~ due to said plurality of working electrodes being formed or coated by said different materials;
- (c) measuring ~~said~~ transient signal responses to said different electrochemical reactions;
- (d) registering the entire transient curves of said transient signal responses; and
- (e) evaluating said entire transient curves of said transient signal responses by multivariate methods.

Claim 40 (previously presented): The method according to claim 39, wherein said voltage pulses are applied as large amplitude pulse voltammetry (LAPV) or small amplitude pulse voltammetry (SAPV).

Claim 41 (previously presented): The method according to claim 40, wherein said transient signals represent current or voltage.

Claim 42 (previously presented): The method according to claim 40, including the step of superimposing said voltage pulses on rising or falling current or voltage curves.

Claim 43 (canceled)

Claim 44 (previously presented): The method according to claim 39, wherein said plurality of working electrodes are formed of or coated by different materials.

Claim 45 (previously presented): The method according to claim 39, and including the steps of cyclically switching a current or voltage generator and/or a recording device between different working electrodes allowing sufficient time between pulses to each electrode to allow the influence of a previous pulse on the fluid to have ceased before a next pulse arrives at the same electrode.

Claim 46 (previously presented): The method according to claim 39, wherein said pulses are varied in frequency.

Claim 47 (previously presented): The method according to claim 39, wherein said pulses are varied in amplitude.

Claim 48 (previously presented): The method according to claim 39, including the step of treating said transients to enhance measurements before said evaluation.

Claim 49 (previously presented): The method according to claim 48, wherein said transients are treated by derivation, integration or proportionality methods.

Claim 50 (previously presented): The method according to claim 39, wherein said electrical pulses have a pulse frequency of 10Hz to 100kHz.

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Claim 51 (currently amended): An electronic tongue, comprising a pulse generator coupled to electrodes for contact with a fluid to be investigated, a recording device for recording transient signal responses ~~transients~~ obtained by application of pulses to said electrodes, and a computer for evaluating transient curves of said transient signal responses ~~transients~~ using multivariate pattern recognition by the method of claim 39.

Claim 52 (previously presented): An electronic tongue, as claimed in claim 51, wherein said computer is adapted to control said pulses based on amplitude, shape or frequency, or based on an interaction between a generated pulse and a measured response.

Claim 53 (previously presented): The method according to claim 39, wherein said electroanalytical cell also includes a reference electrode.

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